

RECEIVED JUNE 6, 2008

Fluor Hanford
 WSCF Analytical Lab
 P.O. Box 1000
 Richland, WA 99352
 Telephone 373-7495
 Telefax 372-0456

FLUOR**Memorandum**

M4W41-SLF-08-599

To: H. Hampt E6-35 Date: June 4, 2008

From: S. L. Fitzgerald, Manager 
 WSCF Analytical Lab

cc: w/Attachments
 T. F. Dale S3-30 J. E. Trechter S3-30
 A. J. Kopriva S3-30 S. J. Trent E6-35
 H. K. Meznarich S3-30 File/LB
 P. D. Mix S3-30

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20080935 – SAF NUMBER F08-115

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002
 (2) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF20080935:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)

SLF/grf

Attachments 4

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20080935
Data Deliverable Date: 23-jun-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-115	B1V9T5	W08GR01260	SOIL

M4W41-SLF-08-599

ATTACHMENT 2

NARRATIVE

Consisting of 2 pages
Including cover page

Introduction

One groundwater sample was received at the WSCF Laboratory on May 8, 2008. This sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was stamped “ICED” by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

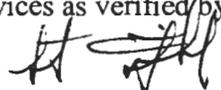
Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, pages 10 through 11, for a complete listing of approved analytical methods.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank, and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 14 through 15 for QC details. All QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.



Scot L. Fitzgerald
WSCF Analytical Laboratory Manager



Andrew J. Kopriva
WSCF Client Services

M4W41-SLF-08-599

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 11 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

S.F. Fitzgerald 6/5/08

Client Services:

Andrew J. Kopriva 6-4-08

All results are reported on an "as received" basis unless otherwise noted in the comment section.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20080935
Report Date: 29-may-2008
Report WGPP/ver. 5.2

Groundwater Remediation Program

w13qlog v4.2 29-may-2008 07:27:11

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20080935

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W08GR01260	Percent Solids

W13q Worklist/Batch/QC Report for Group# WSCF20080935

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			41219	BLANK		PCBs complete list
			41219	LCS		PCBs complete list
			41219	MS	W08GR01260	PCBs complete list
			41219	MSD	W08GR01260	PCBs complete list
			41219	SAMPLE	W08GR01260	PCBs complete list
			41219	SPK-RPD	W08GR01260	PCBs complete list
			41219	SURR	W08GR01260	PCBs complete list

WSCF

METHOD REFERENCES REPORT

Department: Inorganic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C
EPA-600/4-79-020 160.1	Residual, Filterable
EPA-600/4-79-020 160.3	RESIDUE, TOTAL
HEIS 160.1_TDS	Residual, Filterable
Standard Methods 2540B	Total Solids Dried at 103-105 C

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

Report Date: 29-may-2008
Report#: WSCF20080935
Report WGPPM/5.2

10 of 19

WSCF

METHOD REFERENCES REPORT

Department: Organic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)
EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8082A	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
HEIS 8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

Report Date: 29-may-2008

Report#: WSCF20080935

Report WGPPM/5.2

Page 1

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-115
Sample # W08GR01260
Client ID: B1V9T5

TRENT
 WSCF

Matrix: SOIL

Group #: WSCF20080935
Department: Inorganic
Sampled: 05/05/08
Received: 05/08/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total solids											
Total solids	TS	LA-519-412		96.1	Percent			1.00	0.0		05/16/08

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

12 of 19

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-115
Sample # W08GR01260
Client ID: B1V9T5

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20080935
Department: Organic
Sampled: 05/05/08
Received: 05/08/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
PCBs complete list Prep											05/16/08
PCBs complete list											
Aroclor-1016	12674-11-2	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1221	11104-28-2	LA-523-427	U	< 20.0	ug/kg			1.00	20		05/21/08
Aroclor-1232	11141-16-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1242	53469-21-9	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1248	12672-29-6	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1254	11097-69-1	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1260	11096-82-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1262	37324-23-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08
Aroclor-1268	11100-14-4	LA-523-427	U	< 10.0	ug/kg			1.00	10		05/21/08

MDL = Minimum Detection Limit

U - Analyzed for but not detected above limiting criteria.(org)

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

- Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

130119

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080935
 Matrix: SOLID
 Test: PCBs complete list

Sample Date: 05/05/08
 Receive Date: 05/08/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01260											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aroclor-1260	11096-82-5	207.82	101.000	% Recov	75.000	125.000				05/21/08
MS	Decachlorobiphenyl	2051-24-3	199.99	97.400	% Recov	50.000	150.000				05/21/08
MS	Tetrachloro-m-xylene	877-09-8	176.42	85.900	% Recov	50.000	150.000				05/21/08
MSD	Aroclor-1260	11096-82-5	210.73	105.000	% Recov	75.000	125.000				05/21/08
MSD	Decachlorobiphenyl	2051-24-3	198.48	99.100	% Recov	50.000	150.000				05/21/08
MSD	Tetrachloro-m-xylene	877-09-8	177.12	88.400	% Recov	50.000	150.000				05/21/08
SPK-RPD	Aroclor-1260	11096-82-5	105.000		RPD			3.883	25.000		05/21/08
SPK-RPD	Decachlorobiphenyl	2051-24-3	99.100		RPD			1.730	20.000		05/21/08
SPK-RPD	Tetrachloro-m-xylene	877-09-8	88.400		RPD			2.869	20.000		05/21/08
SURR	Decachlorobiphenyl	2051-24-3	188.21	93.700	% Recov	50.000	150.000				05/21/08
SURR	Tetrachloro-m-xylene	877-09-8	171.36	85.300	% Recov	50.000	150.000				05/21/08
BATCH QC											
BLANK	Aroclor-1016	12674-11-2	< 10	n/a	UGKG					U	05/21/08
BLANK	Aroclor-1221	11104-28-2	< 20	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1232	11141-16-5	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1242	53469-21-9	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1248	12672-29-6	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1254	11097-69-1	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1260	11096-82-5	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1262	37324-23-5	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Aroclor-1268	11100-14-4	< 10	n/a	ug/Kg					U	05/21/08
BLANK	Decachlorobiphenyl	2051-24-3	183.47	91.700	% Recov	50.000	150.000				05/21/08
BLANK	Tetrachloro-m-xylene	877-09-8	177.10	88.600	% Recov	50.000	150.000				05/21/08
LCS	Aroclor-1260	11096-82-5	195.65	97.800	% Recov	70.000	130.000				05/21/08
LCS	Decachlorobiphenyl	2051-24-3	368.50	92.100	% Recov	50.000	150.000				05/21/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080935
Matrix: SOLID
Test: PCBs complete list

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Tetrachloro-m-xylene	877-09-8	355.74	88.900	% Recov	50.000	150.000				05/21/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-115

Group #: WSCF20080935
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		Organics: All results are moisture corrected and reported on a dry weight basis. cgc

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

16 of 19

M4W41-SLF-08-599

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 3 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

File

ACKNOWLEDGMENT OF SAMPLES RECEIVED

06/23/08
tel

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123513/ES10
Group#: 20080935
Project#: F08-115
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 05/08/08. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W08GR01260	B1V9T5	TRENT @PCBGPP PERSOLID	Solid, or handle as if solid	05/05/08

Test Acronym Description

Test Acronym	Description
@PCBGPP	PCBs complete list
PERSOLID	Percent Solids

COLLECTOR Kevin Patterson Fluor Hanford		COMPANY CONTACT WIDRIG, DL		TELEPHONE NO. 376-2858		PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 8N		DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION C5989/1 - HERB/PEST		PROJECT DESIGNATION 200-BP-5 OU Characterization for "C" Well Located in the BX/BY Tank Farm				SAF NO. F08-115		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO. NMF-N-5856		ACTUAL SAMPLE DEPTH 2.5'		COA 123513ES10		METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization 20080935		OFFSITE PROPERTY NO. NA				BILL OF LADING/AIR BILL NO. NA					
MATRIX* A=Air DL=Drum L=Liquids DS=Drum S=Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other		POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION Cool~4C							
				TYPE OF CONTAINER aG							
				NO. OF CONTAINER(S) 1							
				VOLUME 250mL							
		SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS PCBs - 8082;							
SAMPLE NO.		MATRIX*		SAMPLE DATE		SAMPLE TIME					
B1V9T5 W03601260		SOIL		5-5-08		0915		✓			
		LOT#				013268					
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM Kevin Patterson Fluor Hanford		DATE/TIME		RECEIVED BY/STORED IN Pablo Cruz VFC		DATE/TIME 5/8/08 1400		<h1>ICED</h1>			
RELINQUISHED BY/REMOVED FROM Pablo Cruz VFC		DATE/TIME 5/8/08 1510		RECEIVED BY/STORED IN TAFERAZIM		DATE/TIME 5/8/08 1510					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION		RECEIVED BY		TITLE				DATE/TIME			
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD		DISPOSED BY				DATE/TIME			